ORDER NO. MD9101001C2

Service Manual

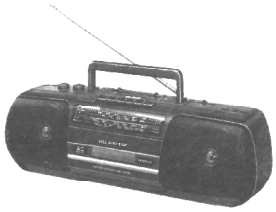
Stereo Radio Cassette Recorder

Radio Cassette

RX-FS410

Color

(K) ..... Black Type



Area

Country Code	Areas	Color
(E)	Continental Europe	(K)
(EB)	Great Britain	
(EG)	F.R. Germany/Italy	

MECHANISM SERIES (SG-20)

SPECIFICATIONS\ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ
SCHEMATIC DIAGRAM\ПРИНЦИПИАЛЬНАЯ СХЕМА
TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES\ЦОКОЛЕВКА МИКРОСХЕМ, ТРАНЗИСТОРОВ И ДИОДОВ
MEASUREMENTS AND ADJUSTMENTS\ИЗМЕРЕНИЯ И РЕГУЛИРОВКИ
MECHANISM PARTS LOCATION\РАСПОЛОЖЕНИЕ ЧАСТЕЙ МЕХАНИЗМА
CABINET PARTS LOCATION\РАСПОЛОЖЕНИЕ ЧАСТЕЙ КОРПУСА
REPLACEMENT PARTS LIST\СПИСОК ЗАПАСНЫХ ЧАСТЕЙ
RESISTORS AND CAPACITORS\РЕЗИСТОРЫ И КОНДЕНСАТОРЫ

■ SPECIFICATIONS

General:

Power Requirement:	AC; (E) (EG) .....220 V, 50 Hz (EB) .....240 V, 50 Hz Battery; 9 V (Six UM-1, Batteries)
Power Consumption:	15 W (AC only)
Power Output:	16 W (8 W x 2) ... PMPO
Speaker:	10 cm PM Dynamic Speaker (2.7Ω)
Output:	HEADPHONES; 32Ω, ø3.5
Dimensions (W x H x D):	460 mm x 148 mm x 151 mm
Weight:	2.4 kg without batteries

Radio Section:

Radio Frequency Range:	FM; 87.5 ~ 108 MHz MW; 520 ~ 1610 kHz LW; 148.5 ~ 285 kHz SW; 5.9 ~ 18 MHz
Intermediate Frequency:	FM; 10.7 MHz AM; 459 kHz
Sensitivity:	FM; (E, EB) .....2.2 µV/50 mW output (-3 dB Limit Sens.) (EG) .....2.5 µV/50 mW output
	MW; (E, EB) .....140 µV/m/50 mW output (EG) .....125 µV/m/50 mW output
	LW; (E, EB) .....160 µV/m/50 mW output (EG) .....140 µV/m/50 mW output
	SW; 4 µV/50 mW output

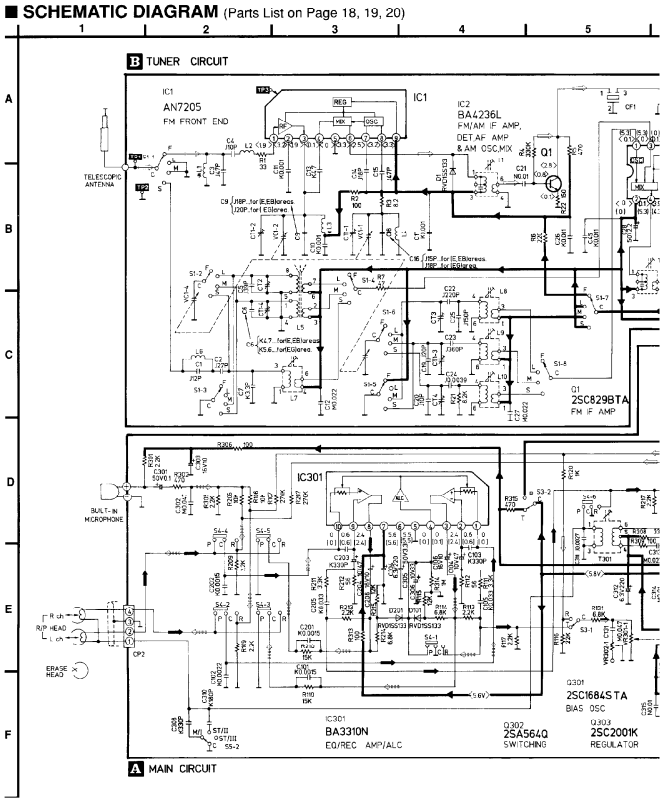
Tape Deck Section:

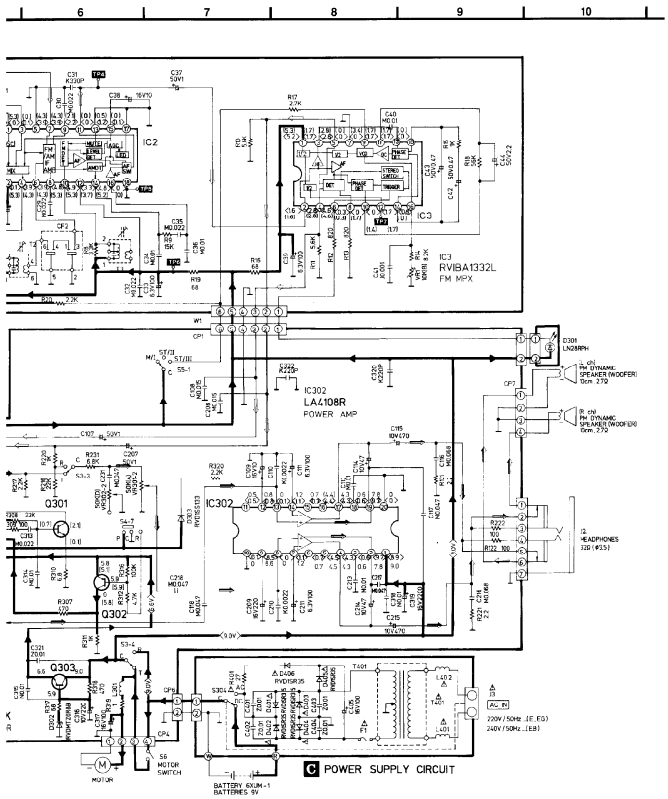
Frequency Response:	70 ~ 10,000 Hz
Tape Speed:	4.8 cm/s
Recording System:	AC bias, Magnet erase
Track System:	4-track 2-channel stereo recording and playback

Notes:
1. Weights and dimensions shown are approximate.
2. Design and specifications are subject to change without notice.

Panasonic

■ SCHEMATIC DIAGRAM (Parts List on Page 18, 19, 20)





Notes:

1. S1-1 ~ S1-8 : Band select switch in "FM" position. (F . . . FM, L . . . LW, M . . . MW, S . . . SW)
2. S3-1 ~ S3-4 : Function select switch in "TAPE/ OFF " position. (T . . . TAPE/ OFF , R . . . RADIO)
3. S4-1 ~ S4-7 : Record/Playback switch in "PLAYBACK" positon. (R . . . RECORD, P . . . PLAYBACK).
4. S5-1 ~ S5-2 : FM mode/Beat proof select switch in "MONO/I" position. (M/I . . . MONO/I, ST/II . . . STEREO/II, ST/III . . . STEREO/III)
5. S6 : Motor switch in "OFF" position.
6. S304 : AC/DC select switch in "DC" position.
7. VR1 : FM VCO adjustment VR.
8. VR301-1, VR301-2 : Volume control VR.
9. VR302-1, VR302-2 : Tone control VR.
10. DC voltage measurements are taken with electronic voltmeter. The negative terminal of the battery provides negative meter connection point.
    No mark . . . . PLAYBACK, ( ) . . . . RECORD, [ ] . . . . AM, < > . . . . FM
11. Battery current : Vol. min ..... 70mA (Radio)
    130mA (Tape Playback)
    Vol. max. ..... 800mA (Radio)
    960mA (Tape Playback)
    870mA (Recording)
    Measurement Instruction
    (Radio : FM 60dB, 30% Mod.
    (Tape: 315 Hz, 0dB
12. Important safety notice:
    Components identified by ⚠ mark have special characteristics important for safety.
    When replacing any of these components, use only manufacturer's specified parts.
13. The mark (■) shows test point eg. TP1 test point 1.

• This schematic diagram may be modified at any time with the development of new technology.

⇨ ... FM SIGNAL LINE
➡ ... PLAYBACK SIGNAL LINE
⇨ ... RECORD SIGNAL LINE
⇒ ... PLAYBACK/FM SIGNAL LINE
➡ ... + B LINE

■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

AN7205	BA4236L	RVIRA1332L	LA4108R	BA3310N
2SC829B 2SC1684S 2SA964Q 2SC2001K	RVD1SS133 RVD1SR35	RVDMTZ6R8BTA	LN28RPH	

■ MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1. Set volume control to maximum.	5. Set power source voltage to 9 V DC.
2. Set tone control to TREBLE.	6. Set FM mode/B.P. switch to STEREO/III.
3. Set band switch to LW, MW, SW or FM.	7. Output of signal generator should be no higher than necessary to obtain an output reading.
4. Set function selector to radio or tape.	

■ LW, MW and SW ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT (Shown in Fig. 1.)	REMARKS
			AM-IF ALIGNMENT				
(1)	MW	Fashion a loop of several turns of wire and radiate the signal into loop ant. of the receiver.	459 kHz 30% Mod. at 400 Hz	Point of non-interference. (on/ about 600 kHz)	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 4, and then connect the lead wires of the plug to the measuring instrument.)	T2 (AM IFT)	Adjust for maximum output.
			LW-RF ALIGNMENT				
(2)	LW	"	(E) (EB)...136 kHz (EG)...137±5 kHz	Tuning capacitor fully closed.	"	L8 (LW OSC Coil)	"
(3)	LW	"	297 kHz	Tuning capacitor fully open.	"	CT3 (LW OSC Trimmer)	"
(4)	LW	"	145 kHz	Tune to signal	"	(*1) L5-1 (LW ANT Coil)	Adjust for maximum output. Adjust L5-1 by moving the ferrite core.
(5)	LW	"	285 kHz	"	"	CT2 (LW ANT Trimmer)	Adjust for maximum output. Repeat steps (2)~(5).
	(*1) Cement antenna ferrite core with wax after completing alignment.						
			MW-RF ALIGNMENT				
(6)	MW	"	(E) (EB) ...511 kHz (EG)...514±3 kHz	Tuning capacitor fully closed.	"	L9 (MW OSC Coil)	Adjust for maximum output.
(7)	MW	"	(E) (EB) ...1650 kHz (EG)...1639±5 kHz	Tuning capacitor fully open.	"	CT1-3 (MW OSC Trimmer)	"
(8)	MW	"	550 kHz	Tune to signal	"	(*2) L5-2 (MW ANT Coil)	Adjust for maximum output. Adjust L5-2 by moving the ferrite core.
(9)	MW	"	1500 kHz	"	"	CT1-4 (AM ANT Trimmer)	Adjust for maximum output. Repeat steps (6)~(9).
	(*2) Cement antenna ferrite core with wax after completing alignment.						

■ HEAD AZIMUTH ALIGNMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCFM (8 kHz, –20 dB)	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 4, and then connect the lead wires of the plug to the measuring instrument.)	Azimuth screw (Shown in Fig. 5.)	Maximum output	• Playback mode.

■ TAPE SPEED ADJUSTMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCWAT (3 kHz)	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 4, and then connect the lead wires of the plug to the measuring instrument.)	Motor VR (Shown in Fig. 6.)	3000±90 Hz	1. Playback mode. 2. Adjust motor VR, for 3000±90 Hz reading on frequency counter.

■ ALIGNMENT POINT

• Please refer to Circuit Board and Wiring Connection Diagram for test point locations.

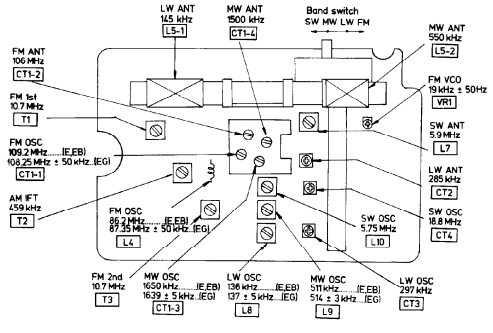

LW ANT 145 kHz L5-1
MW ANT 1500 kHz CT1-4
Band switch SW MW LW FM
MW ANT 550 kHz L5-2
FM ANT 106 MHz CT1-2
FM VCO 19 kHz ± 50Hz VR1
FM 1st 10.7 MHz T1
SW ANT 5.9 MHz L7
FM OSC 109.2 MHz (E,EB) 106.25 MHz ± 50 kHz (EG) CT1-1
LW ANT 285 kHz CT2
AM IFT 459 kHz T2
FM OSC 86.2 MHz (E,EB) 87.35 MHz ± 50 kHz (EG) L4
SW OSC 5.75 MHz L10
SW OSC 18.8 MHz CT4
FM 2nd 10.7 MHz T3
MW OSC 1650 kHz (E,EB) 1639 ± 5 kHz (EG) CT1-3
LW OSC 136 kHz (E,EB) 137 ± 5 kHz (EG) L8
MW OSC 511 kHz (E,EB) 514 ± 2 kHz (EG) L9
LW OSC 297 kHz CT3

Fig. 1

Fig. 2

Fig. 3

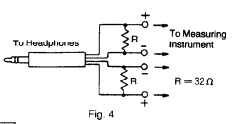


Fig. 4

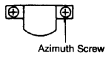


Fig. 5

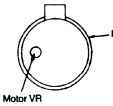


Fig. 6

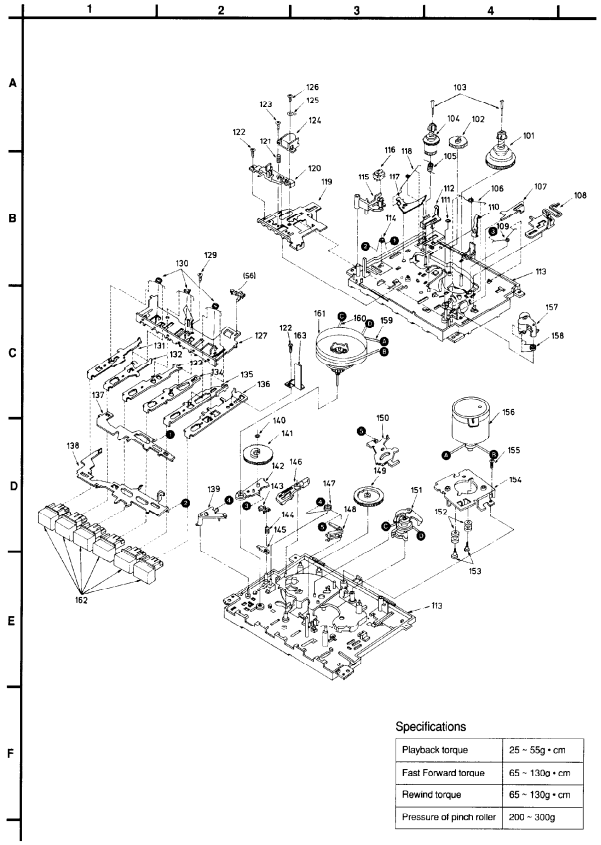
■ FM ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT (Shown in Fig. 1.)	REMARKS
			FM-IF ALIGNMENT				
(13)	FM	High side thru. 0.001 μF to test point TP3. Negative side to test point TP2.	10.7 MHz (SWP)	Point of non-interference. (on/ about 90 MHz).	Connect vert. amp. of scope to test point TP3. Negative side to test point TP5.	T1 (FM 1st IFT)	Wave form is shown in Fig. 2.
(14)	FM	"	"	"	"	T3 (FM 2nd IFT)	Wave form is shown in Fig. 3.
			FM-RF ALIGNMENT				
(15)	FM	Connect to test point TP1 through FM dummy antenna. Negative side to test point TP2.	(E) (EB) ...86.2 MHz (EG)...87.35 MHz ±50 kHz	Variable capacitor fully closed.	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 4, and then connect the lead wires of the plug to the measuring instrument.)	L4 (FM OSC Coil)	(*2) Adjust for maximum output.
(16)	FM		(E) (EB) ...109.2 MHz (EG)...108.25 MHz ±50 kHz	Variable capacitor fully open.	"	CT1-1 (FM OSC Trimmer)	"
(17)	FM		106 MHz	Tune to signal.	"	CT1-2 (FM ANT Trimmer)	Adjust for maximum output. Repeat steps (15)~(17).
	(*2) three output responses will be present; proper tuning is the center frequency.						

■ SEPARATION ALIGNMENT

FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
98 MHz, 60 dB (CW) Connect to test point TP1 through FM dummy antenna. Negative side to TP2.	TP2 . . . (+) TP5 . . . (–)	VR1	19 kHz	Adjust VR1, for 19 kHz ±50 Hz reading on frequency counter.

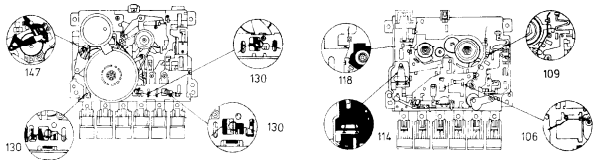
■ MECHANISM PARTS LOCATION



Specifications

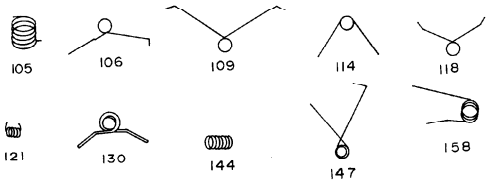
Playback torque	25 ~ 55g • cm
Fast Forward torque	65 ~ 130g • cm
Rewind torque	65 ~ 130g • cm
Pressure of pinch roller	200 ~ 300g

■ SPRING LOCATION



■ SPRING ILLUSTRATION

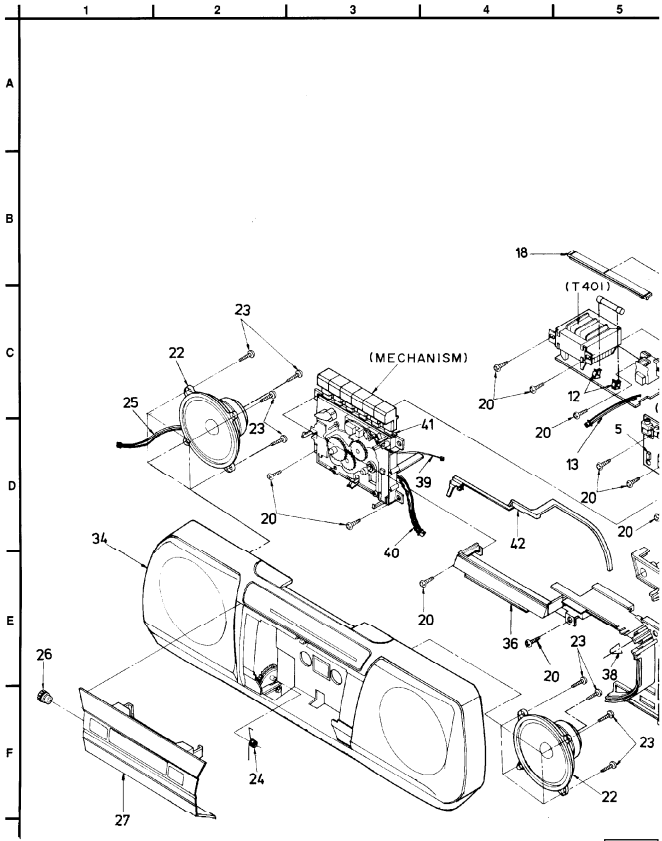
The illustration shows the actual size of the springs so it can be used to check their shapes.
(The illustration shows the springs separated from the mechanism.)

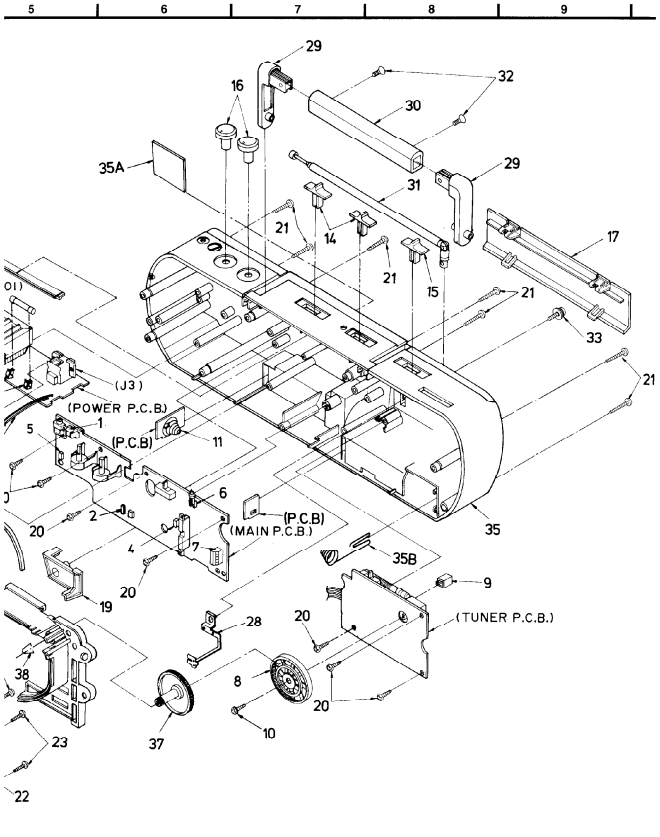


Ref. No.	Part No.	Description	Remarks
		MECHANISM PARTS	
101	RXR0004	TAKE UP REEL ASS'Y	[M]
102	RDG0059	FF RELAY GEAR	[M]
103	RMS0055	REEL SHAFT	[M]
104	RXR0005	SUPPLY REEK ASS'Y	[M]
105	RMB0125	SPRING	[M]
106	RMB0047	SPRING	[M]
107	RML0076	EJECT SELECTION LEVER	[M]
108	RMM0029	EJECT SLIDE LEVER	[M]
109	RMB0048	SPRING	[M]
110	RMC0061	SPRING	[M]
111	RHW16009	CAPSTAIN WASHER	[M]
112	RML0081-1	RECORD SAFETY LEVER	[M]
113	RFU189ZA	MECHANISM BASE ASS'Y	[M]
114	RMB0046-1	SPRING	[M]
115	RML0080	ERASE HEAD ARM	[M]
116	RHC2CY009	ERASE HEAD	[M]
117	RML0116	BRAKE ARM	
118	RMB0109-1	SPRING	[M]
119	RMA0107	HEAD PANEL	[M]
120	RMB0149	HEAD BASE	[M]
121	RMB0059	SPRING	[M]
122	XTN2+3F	SCREW	
123	XTN2+8F	SCREW	
124	RJH4C29MZAS	R/P HEAD	[M]
125	RJR0033	EARTH LUG	[M]
126	RHD20003	SCREW	[M]
127	RMA0109	BACK PLATE	[M]
129	XTN2+6J	SCREW	
130	RMB0043-1	SPRING	[M]
131	RMM0027	PAUSE ROD	[M]

Ref. No.	Part No.	Description	Remarks
132	RMM0026	STOP ROD	[M]
133	RMM0025	FF ROD	[M]
134	RMM0024	REW ROD	[M]
135	RMM0023	PLAY ROD	[M]
136	RMM0028	RECORD ROD	[M]
137	RML0078	FUNCTION PLATE	[M]
138	RML0077	LOCK PLATE	[M]
139	RML0072	AS RELEASE LEVER	[M]
140	RMR0227	IDLER GEAR BUSH	[M]
141	RDG0057	IDLER GEAR	[M]
142	RML0074	IDLER LEVER	[M]
143	RMR0211	PAUSE BUSH	[M]
144	RMB0053	SPRING	[M]
145	RML0082	PAUSE LEVER	[M]
146	RML0071	SWAY LEVER	[M]
147	RMB0045	AS SPRING	[M]
148	RXL0062	TRIGGER LEVER ASS'Y	[M]
149	RDK0005	CAM GEAR	[M]
150	RML0073-1	AS PROTECT LEVER	[M]
151	RXP0014	RF CLUTCH ASS'Y	[M]
152	RMG0102	MOTOR RUBBER CUSHION	[M]
153	RHD26002	SCREW	
154	RMA0108	MOTOR BRACKET	[M]
155	XTN26+8J	SCREW	
156	RHM179ZA	MOTOR ASS'Y	[M]
157	RXP0015	PINCH ROLLER ASS'Y	[M]
158	RMB0049	SPRING	[M]
159	RDV0007	BELT, MAIN	[M]
160	RDV0006-1	RF BELT	[M]
161	RXP0012	FLYWHEEL ASS'Y	[M]
162	RGL0366-K	BUTTON	[M]
163	RMC0076	R/P LEVER	[M]

■ CABINET PARTS LOCATION





■ REPLACEMENT PARTS LIST

Notes : * Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.
* [M] Indicates parts that are supplied by **MESA**.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RJM164YA	MICROPHONE	[M]
2	RJP2G4YA	SOCKET (2P)	
4	RJP4G18ZA	SOCKET (4P)	
5	RJP4G4YA	SOCKET (4P)	
6	RMN0078	LED HOLDER	[M]
7	SJT30643-V	CONNECTOR (6P)	
8	RDG598ZA	VC GEAR	[M]
9	RMC1028ZA	IF SHIELD	
10	XYN26+C6	SCREW (TUNING KNOB)	
11	RMBX0002	SPRING TERMINAL	[M]
12	RFP782A	FUSE HOLDER	⚠
13	REX0195	POWER PCB LEAD	[M]
14	RBD563ZA-0	KNOB, FUNCTION MODE	[M]
15	RBD564ZA-0	KNOB, BAND	[M]
16	RBN65ZA-0	KNOB, VOLUME TONE	[M]
17	RKK318ZC-0	BATTERY COVER	[M]
18	RGQ0041-K	CHASSIS COVER	[M]
19	RUB65ZB	R/P LEVER	[M]
20	XTV3+12G	SCREW	
21	XTV3+20G	SCREW (CAB.)	
22	EAS10P241NJ	SPEAKER	[M]
23	XTV3+10G	SCREW	
24	RMB0115	OPEN SPRING	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
25	REX0196	SPEAKER LEAD	[M]
26	RDG5874ZB	DAMPER GEAR	[M]
27	RFKLXFS410PK	CASSETTE LID ASS'Y	[M]
28	RJR0056	ANTENNA TERMINAL	[M]
29	RKX402ZA-0	HANDLE ARM	[M]
30	RKX65ZA-0	HANDLE BAR	[M]
31	XEARR175EC-Y	ROD ANTENNA	
32	XTC3+10CFN	HANDLE SCREW	
33	XYN3+F8FY	ANTENNA SCREW	
34	RFKGXFS410EK	FRONT CABINET ASS'Y	(E, EB) [M]
34	RFKGXFS410EG	FRONT CABINET ASS'Y	(EG) [M]
35	RFKHXFS410EK	REAR CABINET ASS'Y	(E) [M]
35	RFKHXFS410EB	REAR CABINET ASS'Y	(EB) [M]
35	RFKHXFS410EG	REAR CABINET ASS'Y	(EG) [M]
35A	RGNX0010A-K	NAME PLATE	(EB) [M]
35A	RGNX0010B-K	NAME PLATE	(EG) [M]
35B	RJC91003ZA	BATTERY TERMINAL (+, –)	[M]
36	RMK0095	DIAL CHASSIS	[M]
37	RBT327ZB-0	TUNING KNOB	[M]
38	RUW214ZA	SPRING	[M]
39	REX0197-1	HEAD LEAD	[M]
40	REX0198	MOTOR LEAD	[M]
41	RMXX0002	SPACER	[M]
42	RGJ0007-W	POINTER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	AN7205	I.C., FM FRONT END	
IC2	BA4226L	I.C., FM/AM IF AMP	
IC3	RVIBA1332L	I.C., FM MPX	
IC301	BA3310N	I.C., PRE AMP	
IC302	LA4108R	I.C., POWER AMP	
		TRANSISTOR(S)	
Q1	2SC829B	TRANSISTOR	
Q201	2SC1684S	TRANSISTOR	
Q302	2SA564Q	TRANSISTOR	
Q303	2SC2001K	TRANSISTOR	
		DIODE(S)	
D1	RVD1SS133	DIODE	
D101	RVD1SS133	DIODE	
D201	RVD1SS133	DIODE	
D301	1N58RPH	LED	[M]
D302	RVDMTZ5R8BTA	DIODE	
D303	RVD1SS133	DIODE	
D401	RVD1SR35	DIODE	
D402	RVD1SR35	DIODE	
D403	RVD1SR35	DIODE	
D404	RVD1SR35	DIODE	
D405	RVD1SR35	DIODE	
D406	RVD1SR35	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
		VARIABLE RESISTOR(S)	
VR1	EVNDXAA00B14	V.R., FM VCO	
VR301	EWCUVAF15A51	V.R., VOLUME	
VR302	EWCVVAF15D54	V.R., TONE	
		VARIABLE CAPACITOR(S)	
VC1	RCV1RC2V2K-M	VARIABLE CAPACITOR	
CT2	ECRLA030E53R	TRIMMER CAPACITOR	
CT3	ECRLA020E53R	TRIMMER CAPACITOR	
CT4	ECRLA010A53R	TRIMMER CAPACITOR	
		COILS AND TRANSFORMER(S)	
L2	RLQY3081	COIL	
L4	RLD4Y53	COIL	(E, EB)
L4	RLQ4N223-0	COIL	(EG) [M]
L5	RLF6W9	ANTENNA COIL	
L6	RLQY3084	COIL	
L7	RLA3B41-M	ANTENNA COIL	
L8	RL01B13-M	OSC COIL	
L9	RL02B108-M	OSC COIL	
L10	RLA3B41-M	ANTENNA COIL	
L301	RLQZR101K	COIL	
L401	RLQZB1R0KT-D	COIL	
L402	RLZQB1R0KT-D	COIL	
T1	RLI4B153-MB	FM IFT	
T2	RLI2B153-M	AM IFT	

Ref. No.	Part No.	Part Name & Description	Remarks
		COILS AND TRANSFORMER(S)	
T3	RLI4B153-MB	FM IFT	
T301	RL09B17-T	BIAS OSC. COIL	
T401	RLT5K3G20A-X	POWER TRANSFORMER	(E,EG) [M] ⚠
T401	RLT5K3A10A-X	POWER TRANSFORMER	(EB) [M] ⚠
		FILTERS	
CF1	RVFH07WDZ	CERAMIC FILTER	
CF2	RVFSFZ459L	CERAMIC FILTER	[M]
		SWITCH(ES)	
S1	RSS498AA-H	SW, BAND	[M]
S3	RSS2D32ZA-H	SW, FUNCTION	[M]
S4	RSH2G03WA-A	SW, RECORD	[M]
S5	RSS1845XA-H	SW, HP	[M]
S6	RSH1A003-U	SW, MOTOR	[M]
S904	RJJ13E01-H	JACK W/SW (J3)	⚠

Ref. No.	Part No.	Part Name & Description	Remarks
		FUSE(S)	
F1	XBA2C10TB0	FUSE	⚠
		JACK(S)	
J2	RJD7527YA-C	JACK, HEADPHONE	
J3	RJJ15E01-H	JACK W/SW (S304)	⚠
		PACKING MATERIAL(S)	
P1	RPH0064	MIRAMAT SHEET	[M]
P2	RPH6547A	BAG	[M]
P3	RPK0232	GIFT BOX	[M]
P4	RPN0342	POLYFOAM	[M]
		ACCESSORIES	
A1	RFKSXFS410EK	INSTRUCTION MANUAL ASS'Y	(E) [M]
A1	RQ10813-G	INSTRUCTION MANUAL	(EB,EG) [M]
A2	RJA202D-K	POWER CORD	(E,EG) ⚠
A2	RJA862B-K	POWER CORD	(EB) ⚠

■ RESISTORS & CAPACITORS

Notes: * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistance values are in ohms. unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1	ERDS2TJ330T	33 1/4W
R2	ERDS2TJ101T	100 1/4W
R3	ERDS2TJ8R2T	8.2 1/4W
R4	ERDS2TJ334T	330K 1/4W
R5	ERDS2TJ471T	470 1/4W
R6	ERDS2TJ221T	220 1/4W
R7	ERDS2TJ470T	47 1/4W
R8	ERDS2TJ332T	3.3K 1/4W
R9	ERDS2TJ153T	15K 1/4W
R10	ERDS2TJ562T	5.6K 1/4W
R11	ERDS2TJ562T	5.6K 1/4W
R12	ERDS2TJ821T	820 1/4W
R13	ERDS2TJ821T	820 1/4W
R14	ERDS2TJ822T	8.2K 1/4W
R15	ERDS2TJ102T	1K 1/4W
R16	ERDS2TJ680T	68 1/4W
R17	ERDS2TJ272T	2.7K 1/4W
R18	ERDS2TJ563T	56K 1/4W
R19	ERDS2TJ680T	68 1/4W
R20	ERDS2TJ222T	2.2K 1/4W
R21	ERDS2TJ822T	8.2K 1/4W
R22	ERDS2TJ151T	150 1/4W
R106	ERDS2TJ103T	10K 1/4W

Ref. No.	Part No.	Values & Remarks
R107	ERDS2TJ274T	270K 1/4W
R109	ERDS2TJ222T	2.2K 1/4W
R110	ERDS2TJ153T	15K 1/4W
R111	ERDS2TJ332T	3.3K 1/4W
R112	ERDS2TJ560T	56 1/4W
R113	ERDS2TJ222T	2.2K 1/4W
R114	ERDS2TJ682T	6.8K 1/4W
R115	ERDS2TJ123T	12K 1/4W
R116	ERDS2TJ223T	22K 1/4W
R117	ERDS2TJ222T	2.2K 1/4W
R120	ERDS2TJ103T	10K 1/4W
R121	ERDS2TJ2R2T	2.2K 1/4W
R122	ERDS2TJ101T	100 1/4W
R131	ERDS2TJ682T	6.8K 1/4W
R206	ERDS2TJ103T	10K 1/4W
R207	ERDS2TJ274T	270K 1/4W
R209	ERDS2TJ222T	2.2K 1/4W
R210	ERDS2TJ153T	15K 1/4W
R211	ERDS2TJ332T	3.3K 1/4W
R212	ERDS2TJ560T	56 1/4W
R213	ERDS2TJ223T	2.2K 1/4W
R214	ERDS2TJ682T	6.8K 1/4W
R215	ERDS2TJ123T	12K 1/4W
R216	ERDS2TJ223T	22K 1/4W

Ref. No.	Part No.	Values & Remarks
R217	ERDS2TJ222T	2.2K 1/4W
R220	ERDS2TJ102T	1K 1/4W
R221	ERDS2TJ2R2T	2.2 1/4W
R222	ERDS2TJ101T	100 1/4W
R231	ERDS2TJ682T	6.8K 1/4W
R301	ERDS2TJ222T	2.2K 1/4W
R302	ERDS2TJ471T	470 1/4W
R305	ERDS2TJ222T	2.2K 1/4W
R306	ERDS2TJ101T	100 1/4W
R307	ERDS2TJ471T	470 1/4W
R308	ERDS2TJ333T	33K 1/4W
R309	ERDS2TJ101T	100 1/4W
R310	ERDS2TJ6R8T	6.8 1/4W
R311	ERDS2TJ102T	1K 1/4W
R312	ERDS2TJ472T	4.7K 1/4W
R313	ERDS2TJ101T	100 1/4W
R314	ERDS2TJ105T	1M 1/4W
R315	ERDS2TJ471T	470 1/4W
R316	ERDS2TJ104T	100K 1/4W
R317	ERDS2TJ680T	68 1/4W
R318	ERDS2TJ471T	470 1/4W
R319	ERDS2TJ1R0T	1.0 1/4W
R320	ERDS2TJ222T	2.2K 1/4W
R401	ERG12SJ270E	27 1/2W

Ref. No.	Part No.	Values & Remarks
		CAPACITORS
C1	RCBS1H120JCY	12P 50V
C2	RCBS1H270JLY	27P 50V
C3	RCBS1H470JLY	47P 50V
C4	RCBS1H100JCY	10P 50V
C5	RCBS1H390JLY	39P 50V
C6(E,EB)	ECBT1H4R7KC5	4.7P 50V
C6(EG)	ECBT1H5R6KC5	5.6P 50V
C7	RCBS1H3R3KCY	3.3P 50V
C9(E,EB)	ECBT1H100C5	10P 50V
C9(EG)	ECBT1H200JC5	20P 50V
C10	RCBS1H102KBY	0.001 50V
C11	RCBS1H102KBY	0.001 50V
C12	ECFT1C223MDY	0.022 16V
C13	RCBS1H4R7KCY	4.7P 50V
C14	RCBS1H180JCY	18P 50V
C15	RCBS1H470JLY	47P 50V
C16(E,EB)	ECBT1H150JC5	15P 50V
C16(EG)	ECCR1H180KS5	18P 50V
C17	RCBS1H102KBY	0.001 50V
C19	RCBS1H200JCY	20P 50V
C20	RCBS1H100JCY	10P 50V
C21	RCBS1C103NYY	0.01 16V
C22	ECQP2A221JZT	220P 100V
C23	ECQP2A361JZT	360P 100V
C24	ECQP1392JZ	0.0039 100V
C25	ECQP2A151JZT	150P 100V
C26	RCBS1H102KBY	0.001 50V
C27	ECFT1C223MDY	0.022 16V
C28	ECEA1HU2R2B	2.2 50V
C29	ECFT1C223MDY	0.022 16V
C30	ECFT1C223MDY	0.022 16V
C31	RCBS1H331KBY	330P 50V
C32	ECFT1C223MDY	0.022 16V
C33	ECEA0JU101B	100 6.3V
C34	RCBS1C103MYY	0.01 16V

Ref. No.	Part No.	Values & Remarks
C35	ECFT1C223MDY	0.022 16V
C36	RCBS1C103MYY	0.01 16V
C37	ECEA1HU010B	1 50V
C38	ECEA1CU100B	10 16V
C39	ECEA0JU101B	100 6.3V
C40	RCBS1C103MYY	0.01 16V
C41	ECQP1H102JZ3	0.001 50V
C42	ECEA1HUR47B	0.47 50V
C43	ECEA1HUR47B	0.47 50V
C44	ECEA1HU2R2B	2.2 50V
C45	RCBS1H102KBY	0.001 50V
C101	ECKT1H152KB	0.0015 50V
C102	ECBT1C152KR5	0.0015 16V
C103	RCBS1H331KBY	330P 50V
C104	ECEA1AU470B	47 10V
C105	ECFT1C333KDY	0.033 16V
C106	ECEA1CU100B	10 16V
C107	ECEA1HU010B	1 50V
C108	ECBT0J153MS5	0.015 6.3V
C109	ECEA1CU100B	10 16V
C110	ECBT1C222KR5	0.0022 16V
C111	ECEA0JU101B	100 6.3V
C113	RCBS1C103MYY	0.01 16V
C114	ECEA1AU470B	47 10V
C115	ECEA1AU471B	470 10V
C116	ECFR1C683MR	0.068 16V
C117	ECFR1C473MR	0.047 16V
C118	ECFR1C473MR	0.047 16V
C131	ECFR1C473MR	0.047 16V
C201	ECKT1H152KB	0.0015 50V
C202	ECBT1C152KR5	0.0015 16V
C203	RCBS1H331KBY	330P 50V
C204	ECEA1AU470B	47 10V
C205	ECFT1C333KDY	0.033 16V
C206	ECEA1CU100B	10 16V
C207	ECEA1HU010B	1 50V

Ref. No.	Part No.	Values & Remarks
C208	ECBT0J153MS5	0.015 6.3V
C209	ECEA1CU221B	220 16V
C210	ECBT1C222KR5	0.0022 16V
C211	ECEA0JU101B	100 6.3V
C213	RCBS1C103MYY	0.01 16V
C214	ECEA1AU470B	47 10V
C215	ECEA1AU471B	470 10V
C216	ECFR1C683MR	0.068 16V
C217	ECFR1C473MR	0.047 16V
C218	ECFR1C473MR	0.047 16V
C231	ECFR1C473MR	0.047 16V
C301	ECEA1HU0R1B	0.1 50V
C302	ECFR1C473MR	0.047 16V
C303	ECEA1CU100B	10 16V
C304	ECEA0JU221B	220 6.3V
C305	ECEA1HU3R3B	3.3 50V
C306	ECEA1AU330B	33 10V
C308	ECCT1H331K	330P 50V
C310	ECCT1H181K	180P 50V
C311	ECQP1272JZ	0.0027 100V
C312	ECEA0JU221B	220 6.3V
C313	ECFT1C223MDY	0.022 16V
C314	RCBS1C103MYY	0.01 16V
C315	RCBS1C103NYY	0.01 16V
C316	ECEA1AU221B	220 10V
C317	ECEA1CU101B	100 16V
C318	RCBS1C103NYY	0.01 16V
C319	ECEA1CU222E	2200 16V
C320	RCBS1H221KBY	220P 50V
C321	ECKT1H103ZF	0.01 50V
C322	RCBS1H221KBY	220P 50V
C401	ECKT1H103ZF	0.01 50V
C402	ECKT1H103ZF	0.01 50V
C403	ECKT1H103ZF	0.01 50V
C404	ECKT1H103ZF	0.01 50V
C405	ECEA1CU101B	100 16V